

THE ADVANCE.

"JUST AS THE TWIG IS BENT THE TREE'S INCLINED."

VOLUME 13.

JAMESBURG, NEW-JERSEY, APRIL 26, 1900.

NUMBER 9.

KIND PARENTS AND FRIENDS.

OUR program for the Arbor-day,
Now drawing to its close,
Sparkles with gems of Nature, framed
In poetry and prose;
Of flower-strewn meads and life-lit groves,
It gives us joy to tell;
And pleasure sweetens when we know
That you are pleased as well.

We thank you for that interest
In us which brings you here;
For in your sympathy we find
Encouragement and cheer.
As April rains the welcome flowers
In the sunlight call,
So does your loving influence
Upon our efforts fall.

As now we plant the slender tree,
And watch it, struggling on,
To blossom into usefulness
And bless the world around;
So you your children kindly give
Your tender, constant care,
To help us seek the True in life,
And find our stations there.

Far over this great land are now
Grand schools and teachers kind,
With all the modern helps that come
To train the growing mind;
But none are prized among these aids,
Or welcomed more to-day,
Than School Libraries, and we feel
That they have come to stay.

That our school library has wrought
Much good you surely know;
And, through your timely offerings,
It has not ceased to grow;
For this, again, we tender thanks,
And trust you still will hold,
That "who sows in a worthy cause
Shall reap in many fold."

—L. H. V. S. in John Terhune's Program.

FOREST TREES.

THERE is a kinship 'mong the trees
That in the forest grow—
A deferential courtesy
That to each other show
Such grace of manners, so polite,
Such stately, highborn ways—
It minds one of the etiquette
Of old Colonial days.

Sometimes they join in solemn chant,
In measures mild and sweet;
Sometimes they pour forth strains of joy
With melody replete.
Sometimes, with branch outstretched to branch,
All gentle and serene,
They dance a graceful minuet,
All in a forest fete.

Oh, endless are the wildwood joys!
Oh, measureless the grand
Of branch and blossom, leaf and bough,
That winsome interlace!
Great Nature yields no goodlier joy
On all her lands and seas,
No goodlier rest for weary brain
Than commune with the trees.

They bring us tidings of the skies
As upward still they grow;
The lofty wisdom of the heavens
In silent speech they show.
Endowed with beauty, grace, and strength,
And rich in fruitfulness,
God made them almoners of earth—
The whole, wide world to bless.

—M. D. Tolman.

MY ARBOR-DAY TREE.

THE greenest, leafiest, prettiest tree,
My papa planted that day for me;
And said it should be my very own,
While it was little and when it was grown.
I helped him plant it. He let me stand
And hold it tightly with my hand.

Then—how the sun came out to shine
Warm and bright on that tree of mine;
And pa tiring, pattering in the night,
Dear little rain-drops, soft and light;
And every zephyr that came that way
Stopped a moment to laugh and play.

That isn't all. A little bird
Came hopping one day—she must have heard
That never anywhere could be found,
Hunting the woods and groves around,
So beautiful, straight and fine a tree
As that one papa set out for me.

She built the tiniest, cunning nest,
Fit for a birdling's sweetest rest;
And now if you will listen you will hear,
Thrilling, twittering loud and clear,
Bird songs merry and sweet and gay,
Gladdening all the summer day.

HOW THE THISTLE SAVED SCOTLAND.

ENGLAND may bear on her shield the rose,
France boast her lily fair,
But only an ugly thistle
The seal of Scotland bears.
And we wonder why this choice was made.
Are her beautiful flowers so few?
Ah no, but it rendered service
Which its fairer friends might not do.

'Twas long ago, when the wily Danes
Had laid their plans to take
A Scottish port while the soldiers slept,
Unconscious of their fate,
So very softly they crept along,
And little heeding, the Scots slept still;
Peace may reign in the vale below,
Though danger threatens from the hill.

They had nearly reached the destined spot
When one unwary Dane
Stepped into a tall rank thistle,
And crying out in pain,
The sleeping soldiers were soon aroused,
And alas, for the stealthy Danes,
They were bravely fought and beaten,
Molesting the Isle no again.

It was only a poor plain thistle
Beside its fairer friends,
But it rendered faithful service
Which added beauty lends.
So the Scots have since proudly claimed it
As their country's most honored flower,
Regarding it with an honest pride
As the fairest rose-clad bower.

—Helen F. Ward.

THE HAPPY SPRING-TIME.

THERE'S something in the air,
That's new and sweet and rare,
A scent of summer things,
A whirr as if of wings.

There's something too that's new
In the color of the blue
That's in the morning sky
Before the sun is high.

And though on plain and hill
'Tis winter, winter still,
There's something seems to say,
That winter's had its day.

And all this changing tint,
This whirling stir and hint
Of bud and bloom and wing
Is the coming of the Spring.

—Belford's Annals.

THOUGHTS FOR ARBOR-DAY.

DEAR PUPILS:—Arboriculture-tree-planting and tree-cultivating ought to be taught in the common and other schools of the United States. Every family that owns a home should plant trees. There is room for one or more trees on every village lot, and adults and children, too, should see that it is utilized.

The similitude between the growth of trees and human character is marvelously suggestive. Each year, in sunshine and in storm, the healthy, sturdy tree is growing stronger and each year it records its increasing solidity and diameter. Each human being, properly organized and in health, is every year forming character and solidifying individuality. The tree must have proper fertilization, and character the right sort of mental and moral nutrition.

Trees, too, are like a community of citizens. Trees have large and strong branches and small twigs and leaves and flowers and fruits, and each, without envious rivalry, does well its office and properly fulfils its functions. And in the school and in the community each member should do well his or her duty, and thus, while some are large and strong and some small and weak, together they form a perfect, useful and beautiful composite.

At Arbor Lodge, where I began my home life, more than forty-four years ago, and where I have converted raw prairie into groves and orchards, the practice of tree-planting by members of my family has been constantly and conscientiously in vogue. There are trees there which the mother of my sons planted and which, though she passed into rest nearly twenty years ago, are in their symmetry and beauty constant reminders of her useful and unselfish life. And there are others planted by her sons, and by their children, and by my own mother, which tell every summer of the beneficence and wisdom of arboriculture. They are living monuments to those who placed them carefully and tenderly in the fertile earth. Their shade and fruit are ever-recurring testimonials to the highest type of altruism. Some of these trees are named as memorials to those who planted them. And all families with homes can plant trees and, no matter how humble the home, they will embellish it and make it look prettier and more attractive. Trees are democratic. They will thrive and bud, blossom and fruit as grandly beside a cottage or a cabin as in the shadow of a palace. They are friends of the poor. They will do as well for the owner of a village lot as they will for the proprietor of a vast estate.

Try the trees. Trust the trees. They will repay you all your care a thousand-fold. Faithfully yours,
J. STERLING MORTON.

ARBOR LODGE, Jan. 25th, 1900.

"Where'er you see a little space,
There plant a little tree;
A good deed should be done when'er
There's Opportunity."

GUTTA PERCHA TREES.

RICH as the Philippines are known to be, it is in one product that they promise to be of great value. It is a monograph just published in Germany it is shown that the Philippines are among the few places on earth in which the trees from which gutta-percha is procured will flourish. The value of this statement is not to be under-rated for two reasons. One is that gutta-percha is an indispensable material for the making of submarine cables and golf balls; the other is that the trees in Sumatra and Borneo, from which the chief supply has hitherto been drawn, are almost entirely exhausted. The cause of this exhaustion lies in the primitive and destructive methods which were formerly employed for gathering the valuable commodity. The natives, who never have any thought for the morrow, have ruthlessly cut down whole forests of trees, so that they might scrape the gutta-percha which is nothing but the sap from the inside bark. This wholesale destruction carried on for years has greatly diminished the annual crop, but the discovery that these trees grow and can be successfully cultivated in the Philippines offers hope that a new mine of wealth has been found for American enterprise as soon as the islands are pacified.

The discovery of gutta-percha goes back to the year 1847, when Sir William Jackson Hooker and Dr. Ernest Werner von Siemens announced not only the discovery of this valuable product, but also that it was adapted to the insulation of wires along which electric currents were to pass. When it is considered that without gutta-percha all of the progress of the last half century in drawing the ends of the earth together by the lightning's flash would have been impossible, the importance of this discovery is easily appreciated. While the chief use of gutta-percha is, of course, for the insulating covering of electric wires, a large quantity is used for the manufacture of golf balls, for which no other material seems so well adapted. Its hardness, after having been submitted to the proper pressure, and its toughness makes it the only golf ball material yet discovered. The amount of cable laid since 1856 is some 41,853 knots, representing a cost for the cables alone of millions of pounds sterling, and as the prospects are that during the next fifty years many more cables will be required and laid, the demand for gutta-percha is almost unlimited. The wealth which gutta-percha in the Philippines holds out to American enterprise is in proportion to this demand.

CLOVER SICKNESS.—Clover sickness, a common disease that often ruins clover crops, has caused German scientists to make experiments. They now say that farmers will soon be able to inoculate their land just as human beings may be treated.

ARBOR-DAY HINTS.

THE observance of Arbor-Day has many things to commend it. The annual returns from the forest of the United States reach proportions so vast that they can scarcely be comprehended. The value of our forest products is said to far exceed that of our wheat crop, or of all our mineral and coal mines put together. Or even greater importance is the relation which forests bear to climate and water supply. They may not increase the rainfall, and indeed it seems probable that they do not, at least to any practical extent, but they do exert a marked influence upon the distribution of rain after it does fall.

In mountainous regions, the ax which clears away the forest growth is often followed in quick succession by fire, which sweeps over the region, destroying everything left by the lumberman, including both the refuse of the previous timber crop and the young material which is springing up to take its place. This destroys the forest cover or mulch of leaves and roots which held back the water supply as it fell, thus allowing rains to rush quickly away, oftentimes carrying rocks, boulders and debris of all sorts with it, and devastating the valleys below.

In a prairie region the influence of the forests is less than in mountainous regions. Still every well kept grove in which spontaneous growth has been allowed to spring up so that the ground is thoroughly shaded, and a forest cover formed, tends to hold back some of the rain which falls upon it. It also tends to moisten in some slight degree the winds which pass through it. Our own region suffers more from excessive evaporation than from deficient rainfall, and any influence which tends to decrease this evaporation is of importance. Forests must do this both by retaining the moisture which they hold back from running away quickly, and particularly by reducing the wind velocities, hence are of great value to the Agriculture of the states.

Arbor-Day planting however cannot be expected to produce forests. The chief value of the observance of the day doubtless lies in bringing to our attention the importance of the subjects which cluster around the trees, their planting, care, utilization and influence so far as the planting of the day is concerned, it must be chiefly directed to beautifying our surroundings. The degree in which this object shall be accomplished will depend more upon the arrangement of the trees than upon the kind selected.

Effective grouping is the most important feature of ornamental planting. The trees, shrubs, or plants of whatever sort, that may be used should be so arranged as to appear easy and graceful, as though Nature herself had scattered the seeds and nursed the plantlets. The outline of the group should be strongly irregular, with points projecting and bays receding. Not all of the trees should be of the same height. Shrubs should be planted to carry up the green from the lawn in an irregular and unbroken sweep, for really the lawn is the most essential part of the whole. There should be openings for desirable views wherever they can be obtained. Undesirable things may be cut off by intercepting the line of sight toward them with groups. Such a method of arrangement is far more effective than any scheme of planting in rows, or of promiscuously putting in a tree or a bush wherever a place for it can be found. The idea of ornamental planting is to make of the lawn or the grounds under our care a picture of which the trees and shrubs form the component parts.—Fred. W. Card, Professor of Horticulture in University of Nebraska, in the Nebraska School Journal.

THE OLD LOG CABIN.

It is only shallow-minded pretenders who either make distinguished origin a matter of personal merit, or obscure origin a matter of personal reproach. Taunt and scoffing at the humble condition of early life affect nobody in America but those who are foolish enough to indulge in them; and they are generally sufficiently punished by public rebuke. A man who is not ashamed of himself need not be ashamed of his early condition. It did not happen to me to be born in a log cabin, but my elder brothers and sisters were born in a log cabin, raised among the snow-drifts of New Hampshire, at a period so early, that when the smoke first rose from its rude chimney and curled over the frozen hills, there was no similar evidence of a white man's habitation between it and the settlements on the rivers of Canada.

Its remains still exist. I make it an annual visit. I carry my children to it, to teach them the hardships endured by the generations which have gone before, I love to dwell on the tender recollections, the kindred ties, the affections, and the touching narratives and incidents which mingle with all I know of this primitive family abode. I weep to think that none of those who inhabited it are among the living, and if ever I am ashamed of it, or if I ever fail in affectionate veneration to him who reared it, and defended it against savage violence and destruction, and cherish all domestic virtues beneath its roof, and through fire and blood of seven years' revolutionary war, shrunk from no danger, no toil, no sacrifice, to serve his country, and to raise his children to a condition better than his own, may my name, and the name of my posterity, be blotted forever from the memory of mankind.—Daniel Webster.

WAIT not till I invite thee, but observe that I am glad to see thee when Thou comest.

THE DOUGLAS SPRUCE OF OREGON.

WHEN growing in open situations the Douglas spruce develops a large spreading crown, which gives the tree a broad, conical aspect. Such trees are comparatively short and grow rapidly in diameter. In dense stands, on the other hand, the trees are very tall, shield their lower branches early, and form long clear boles with narrow compact crowns. The Douglas spruce carries its diameter well up into its crown, and in case of very old trees the stem then tapers within a few feet abruptly to a point, this portion being usually bent in the direction of the prevailing wind. The largest tree measured by the writer was 13 feet in diameter and had an estimated height of nearly 300 feet. One observer states that he measured a tree in Washington 335 feet high and 15 feet in diameter. The oldest tree, whose age was determined during the present study, was about 400 years old, but specimens have been found with 700 annual rings on the stump.

The bark of young trees is light gray or white, and is smooth, thin, and covered with resin blisters. When twenty to thirty years old the bark becomes longitudinally cracked. In later life the color varies from dark brown, almost black, to a whitish gray; and often on old trees it is reddish, or light brown tinged with yellow. At about fifty years of age the bark is six-tenths to nine-tenths of an inch thick, and on old trees three to six inches or even more.—The Forester.

GERMANY'S FORESTS.

GERMANY has developed faster than any European country in many directions. Russia, like a sweeping giant, has awakened and is putting hundreds of millions into railroad development and accessory improvements. It is inviting its pauperized peasantry to escape into a land of promise, where a new world awaits them under brighter stars. Germany has an ambition to become a world power. It has every element of success behind it. Its area is 133,000,000 acres; its forests, 24,700,000 acres; its population, 47,000,000. Her forest products are a source of great wealth. The present annual total cut of the entire Empire is 1,910,000,000 cubic feet, of which 710,000,000 cubic feet come from the State forest. Germany has a steadily increasing supply of timber, because she takes care of her forests, where we have none because we take no care. Germany sees to it that lands which in other countries are barren wastes are here made productive in timber and lumber. It produces about forty cubic feet of wood per head of population, but with all this Germany has to import considerable lumber. Its yearly annual income from the State forests, which is about one-third of the total forest area, is \$40,000,000, which enables the Government to build war ships. The value of the forest products from all the forest area is \$107,000,000. These figures are instructive to us as to forest management.

COMMERCIAL VALUE OF TREES.

ARBOR-DAY has its abundant justification in the surpassing value of trees from whatever point of view they are considered. Their beauty is felt by all. Nothing contributes so much to make the world a pleasant place of abode of man. Just as anyone has the true home feeling and seeks to create a home for himself, he seeks the trees as being an indispensable aid in the accomplishment of his purpose. He must have the trees around his dwelling-place. He must have their shelter and their shade, their beauty of form, of leaf, and blossom, and fruit, their ever-varying aspect with every change of earth and sky, of sunshine and cloud. In short, he must have their companionship in his daily life. But, looked at apart from all such feeling and sentiment, looked as mere lumber or material for man's constructive purposes, for the thousand uses of daily life, the trees have an almost incomparable value. Estimated by their money value alone the products of the forest exceed those from almost any other source. Therefore let Arbor-Day be observed vigorously by every state in the Union, and besides the commercial value of trees and forest, let the young be taught the value of their beauty, and the nature and peculiarities of their kinds and species. Trees are one of the tribes of nature's children, and have a life story all their own.

HIGHEST PRICED OAK CHAIR.

At a recent auction sale of old furniture in Edinburgh a chair, bearing on the back the carved words "Dunottar Castle," was put up, says the Liverpool Post. Experts expected it might fetch about \$125. The bidding began at \$25, and soon reached \$150, when only two brokers remained in the competition, which, to the amazement of every one present, advanced in \$25 bids to \$500, and then jumped at steps of \$50 to \$3,000. Finally one of the bidders retired, and the chair was knocked down to his successful rival at the price of \$3,350. The secret of this strange sale is quite simple. Sir Donald Currie had seen the name on the back of the chair and had commissioned an Edinburgh broker to buy it. Next day, forgetting what he had done, he instructed a Glasgow broker to bid for the chair, and these two were the rival bidders, with the result that Sir Donald is the possessor of what is probably the most costly oak chair in the world.

CLOSING OF PLANT LEAVES.—The closing of the leaves of plants as the evening comes on was at first supposed by botanists to be due to the difference in temperature, but on transplanting the plants into a hot-house it was found that the same phenomenon occurred, the leaves closing at sunset.